

Remarks

This Amendment is responsive to the Office Action mailed March 10, 2003. In this Office Action, Claims 1-3, 6, 8, 10-11, 27, 29-36, 39-45, 48 and 51-53 were rejected under 35 U.S.C. § 102 as being anticipated by Wakefield, II (U.S. Pat. No. 5,961,561); Claims 4, 14-18, 21-26 and 28 were rejected under 35 U.S.C. §103 as unpatentable over Wakefield, II in view of Durston et al. (U.S. Pat. No. 4,707,848); Claims 5, 7, 37-38, 47 and 49 were rejected under 35 U.S.C. §103 as unpatentable over Wakefield, II in view of Ziegra et al. (U.S. Patent No. 5,619,183); Claim 19 was rejected under 35 U.S.C. §103 as unpatentable over Wakefield, II in view Durston et al and further in view of Ziegra et al.; Claims 13 and 55 were rejected under 35 U.S.C. §103 as unpatentable over Wakefield, II in view Rutkowski et al. (U.S. Patent No. 5,826,270); and claims 13 and 15 were rejected under 35 U.S.C. §103 as unpatentable over Wakefield, II in view Rutkowski et al. and further in view of Walker et al. (U.S. Patent No. 5,963,911). Claim 23 was also rejected under 35 U.S.C. §112, second paragraph, for reciting a term that lacks antecedent basis.

As a result of this Amendment, claims 1-55 remain pending in this case. Claims 23 and 27 have been amended and are believed to be allowable over the art of record. Reconsideration of the application is respectfully requested in light of the above amendments and in consideration of the following remarks.

A. 35 U.S.C. §112 Rejections

Claim 23, which was rejected under 35 U.S.C. §112, second paragraph, in the Office Action, has been amended to address the 35 U.S.C. §112 issue raised by the examiner. Specifically, the phrase "the registration/communication module," which lacked antecedent basis, has been omitted from the claim.

B. 35 U.S.C. §§102 and 103 Rejections

1. Claims 1-13 and 43-55:

In the Office Action, independent claims 1 and 43 were rejected as anticipated by Wakefield, II. As described in greater detail below, these claims recite an invention that is neither taught nor suggested by Wakefield, II. As such, claims 1 and 43 and the claims (2-13 and 44-55, respectively) that depend from these independent claims are believed allowable over

this reference. Prior to addressing applicability of Wakefield, II to these claims, general overviews of these claims and Wakefield, II are provided.

In general, the present invention, as recited in claims 1 and 43, relates to providing advisory information to a field service person for use in performing tasks at destination facilities. The advisory information is generated by a server computer communicatively accessible to the field service person by way of a network device, such as, without limitation, a computing system, cellular telephone, pager, etc. The server computer generates the advisory information by analyzing information associated with each of the destination facilities against advisory rules corresponding to the data type of the information.

Wakefield, II is generally directed to a software program (referred to in Wakefield, II as "TDP system") for remotely monitoring and controlling operation of an electric or motorized wheelchair. The wheelchair includes a control module responsible for locally controlling and monitoring operation of the wheelchair, including collecting data associated with the various components (e.g., joystick, batteries, etc.) on the wheelchair. The control module is coupled to a modem for transmitting collected data to and receiving control data from a remote computer on which the TDP system executes. The modem and the remote computer exchange data over a data communication network, such as the wireless link 14 shown in FIG. 1 of Wakefield, II. The TDP system also provides a user interface module for enabling users of the remote computers to monitor data collected by the control module as well as input control commands to the module.

Turning now to claims 1 and 43, each claim recites a computer-implemented act of "generating a data conclusion based on an analysis between the collected data and an advisory rule corresponding to the data type" of the collected data. As such, claims 1 and 43 not only specifically recite a *data-type specific analysis* by which a data conclusion is generated, but also require that the data conclusion be generated *at a server computer*. Thus, the data conclusion is not generated by a computer at each individual destination facility, but rather a computing system that is centrally located and serves potentially multiple destination facilities.

A claim is properly anticipated under 35 U.S.C. §102 only if each and every element as set forth in the claim is found in a single prior art reference. See Manual of Patent Examining Procedure (MPEP), at §2131.01 (citing *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (Fed.Cir. 1987)). Moreover, this single prior art reference must teach the identical invention in as complete detail as recited in the claim at issue in order for the claim to be

anticipated. See MPEP, at §2131.01 (citing *Richardson v Suzuki Motor Co.*, 868 F.2d 1226, 1239 (Fed.Cir. 1989)).

It is respectfully submitted that Wakefield, II does not anticipate the present invention as recited in claims 1 and 43 because each element of these claims is not found in Wakefield, II. Wakefield, II does not teach the generation of data conclusions as a result of an analysis of collected data to *a rule corresponding to the particular data type* of the data. Rather, the portion (Col. 6, lines 4-39) of Wakefield, II cited by the examiner to show this limitation is directed to reception and use of error codes by a remote computer. While the error codes may represent information related to faulty operation of a wheelchair, these error codes do not constitute "data conclusions," as recited in claims 1 and 43. More specifically, claims 1 and 43 specifically recite data conclusions as being "generated based on an analysis between the collected data and an advisory rule corresponding to the data type." The error codes of Wakefield, II are not described in as complete detail as recited in these claims to warrant the requirements for anticipation. Indeed, Wakefield, II does not teach, nor suggest, a process by which these error codes are generated, but rather only focuses on the use of the error codes by the remote computer. As such, a correlation cannot be made between these prior art error codes and the data conclusions recited in claims 1 and 43 due to the lack of detail on how these codes are generated. Moreover, Wakefield, II certainly does not teach the generation of error codes *at a server computer*. Instead, the error codes taught by Wakefield, II are provided by the wheelchair control module to the remote computer, and therefore, must be generated by the wheelchair control module. For at least these reasons, it is believed that claims 1 and 43 each recite limitations that are not found in Wakefield, II, and therefore, these claims are believed allowable over this particular reference.

Claims 2-13 depend from claim 1 and hence recite an invention that incorporates the same limitations of claim 1. For at least the reasons that claim 1 is believed allowable over Wakefield, II, claims 2-13 should also be allowed.

Claims 44-55 depend from claim 43 and hence recite an invention that incorporates the same limitations of claim 43. For at least the reasons that claim 43 is believed allowable over Wakefield, II, claims 44-55 should also be allowed.

With further respect to claims 2 and 44, each of these claims recite "collecting census data associated with the destination facility." "Census data" is specifically defined in the specification of the present application as being information that relates to *a demand or supply*

associated with a particular service being provided at a destination facility. *See Specification*, at page 9, lines 23-24 (emphasis added). While Wakefield, II teaches the collection of data related to the actual components and operating conditions of the wheelchair by the control module, i.e., "device data," *See Specification*, at page 9, line 31 - page 10, line 4, Wakefield, II does not teach collecting any form of information related to the supply or demand of any service associated therewith, i.e., "census data." It is respectfully believed that the portion (Col. 5, line 62 - Col. 6, line 3) of Wakefield, II that the Examiner relies on to show census data actually describes device data. Indeed, nowhere in this cited portion does Wakefield, II teach, or even suggest, data related to a supply or demand of a service associated with the wheelchair or location of the wheelchair. For example, this portion describes data as being error codes, battery quality, hourmeter reading since last battery test and current battery voltage level, but does not teach, for example, collecting data related to the operational life of the battery, the operational life of the wheelchair, the number of users of the wheelchair, etc. For at least these reasons, claims 2 and 44 are believed to be further allowable over Wakefield, II.

With further respect to claims 12 and 54, each of these claims recite, as part of the presenting act of claim 1, "accessing a specific data-type record of the customer account record *based on an identification code associated with the field service provider*." This accessing act is performed in order to retrieve the advisory information that is to be presented to the field service person. Because various types (e.g., device, census and business) of advisory information may be generated and presented to field service person, the present invention, as recited in claims 12 and 54, provide a specific embodiment wherein the appropriate type of advisory information is retrieved for presentation to the field service person. In the same sense that Wakefield, II fails to show the analysis of collected data against an advisory rule based on the specific data type of the collected data, Wakefield, II also fails to show accessing and retrieval of information from a *specific data-type* record of a customer account, wherein the record is selected based on a specific data type. For at least this reason, claims 12 and 54 are believed to be further allowable over Wakefield, II, alone or in combination with any of the other cited references.

2. Claims 27-42:

In the Office Action, independent claim 27 was rejected as anticipated by Wakefield, II. As described in greater detail below, claim 27 recites an invention that is neither taught nor

suggested by Wakefield, II. As such, claim 27 and the claims (28-42) that depend from this independent claim are believed allowable over this reference.

In general, claim 27 relates to an advisory module for use with a network advisory system interacting with a user through a network device. The network advisory system also includes a data collector for collecting data for manipulation into advisory information by the advisory module as well as a database for storing the data after collection, but prior to manipulation. The advisory module includes a novel combination of an intelligence module, a mapping module and a registration/communication module. The intelligence module retrieves the collected data from the database and generates a data conclusion relating the retrieved data to an advisory rule. The advisory rule is selected by the advisory module based on the data type of the retrieved data. The mapping module maps the data conclusion to advisory information. The registration/communication module is the component that grants users access to the network advisory system for presentation of the advisory information.

Claim 27 specifically recites the intelligence module as being a component of the advisory module that *generates data conclusions relating the retrieved data to an advisory rule*. The advisory module is specifically recited in claim 27 to be a separate component of the network advisory system respective to the data collector, and indeed, is the component that actually generates the data conclusion, and subsequently, the advisory information therefrom. According to the claim, the data collector merely collects data for use in generating the data conclusion. As such, the advisory module is equivalent to the server computer of claims 1 and 43. As noted above, Wakefield, II does not teach the generation of error codes *at a server computer*, but rather the error codes taught by Wakefield, II are provided by the wheelchair control module to the remote computer. Therefore, the error codes must be generated by the wheelchair control module, which is the same device that performs the data collecting. Thus, Wakefield, II does not teach the combination of *a data collector and an advisory module*, wherein the data collector is a first component that collects data and the advisory module is a second component that analyzes the data to generate data conclusions. For at least these reasons, it is believed that claim 27 recites at least one limitation not found in Wakefield, II, and therefore, this claim is believed allowable over this reference.

Furthermore, claim 27 has been amended to recite the advisory rule being "*selected from a plurality of advisory rules stored on the advisory module based on the data type of the*

collected data." (emphasis added). As such, claim 27, as amended, recites analysis of collected data against an advisory rule, wherein the advisory rule selected for the analysis is specific to the data type of the collected information. For instance, if census data is the collected data, then the advisory rule is specific to, and therefore includes conditions for relating, the census data to census-specific conditions.

As noted above, although Wakefield, II addresses the collection of data from an electric wheelchair at a customer location, as noted above, Wakefield, II does not teach the relation, or analysis, of this collected data to an advisory rule. Even further, Wakefield, II certainly does not disclose, or even inherently suggest, the wheelchair control module or the remote computer having the capability of analyzing data against a rule *selected based on a data type associated with the data*. The error codes taught by Wakefield, II are generated by the control module (FIG. 1: 10) of the wheelchair and transmitted to the remote computer (FIG. 1: 12) via the modem (FIG. 1: 13). These error codes only relate to data associated with the actual operation of the wheelchair, and as such, would be considered "device" data, as defined in the present application. As these error codes are received by the remote computer (FIG. 1: 12), Wakefield, II teaches only the mere conversion of the error codes to a detailed explanation, and not analysis of the codes against an advisory rule selected based on a specific data type. Indeed, if Wakefield, II even inherently discloses any analysis whatsoever, it *only* suggests analyzing device-related data by the control module (FIG. 1: 10) of the wheelchair. Such a single-data based analysis actually teaches away from the use of advisory rules based on specific data type because there is only one data type in which to choose advisory rules from, *and therefore no "selection."*

Claims 28-42 each depend from claim 27 and hence recite an invention that incorporates the same limitations of claim 27. For at least the reasons that claim 27 is believed allowable over Wakefield, II, claims 28-42 should also be allowed.

3. Claims 14-26:

i. Failure to Establish a Prima Facie Case of Obviousness

Claims 14-26 have been improperly rejected over a combination of Wakefield, II and Durston et al. The Examiner does not establish a prima facie case of obviousness by failing to meet three basic criteria enumerated by the U.S. Court of Appeals for the Federal Circuit in *In Re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (1991). See MPEP, at §706.02(j).

First, the Examiner's reasoning for rejecting claims 14-26 does not show where each and every limitation of these claims is taught or otherwise disclosed by the combination of Wakefield, II and Durston et al. See MPEP, at §706.02(j). As described in Section (B)(3)(ii), below, these references have indeed been reviewed in detail and it is believed that such a combination does not teach or suggest all the limitations of claim 14, the independent claim to which claims 15-26 depend.

Second, the Examiner's reasoning for rejecting claims 14-26 does not provide evidence showing a suggestion or motivation, either explicitly in Wakefield, II or Durston et al. or in the knowledge generally available to one of ordinary skill in the art, to modify or combine the teachings of these references to render the invention, as a whole, obvious. See MPEP, at §706.02(j). Whereas Wakefield, II is directed to a software program for use in troubleshooting, diagnostics and controlling operations of electric and motorized wheelchairs, Durston et al. is directed to a means for improving the assignment of tasks for field service technicians in the telephone industry. These references therefore do not relate to like technology and there is no teaching in either reference which would lead one of ordinary skill in the art to apply the data presentation features of Wakefield, II to the telephone network implementation of Durston et al.

Third, the Examiner's reasoning for rejecting claims 14-26 does not provide evidence of a reasonable expectation of success in carrying out the invention with the combination of Wakefield, II and Durston et al. See MPEP, at §706.02(j).

For at least these reasons, it is believed, that the rejections to claims 14-26 are improper because the Examiner's reasoning for rejecting these claims in view of a combination of Wakefield, II and Durston et al. fails to establish a prima facie case of obviousness. As such, Applicant respectfully requests that these rejections be withdrawn and solicits prompt allowance of these claims. Further support as to why claims 14-26 are believed allowable over the art of record is provided in the following section (B)(3)(ii).

ii. Applicability of Cited References to Claims 14-26

Notwithstanding the fact that a prima facie case of obviousness has not been established by the evidence of record, the invention recited in claims 14-26 is distinguishable over the combination of Wakefield, II and Durston et al. because each and every limitation of amended claims 14 is neither taught nor suggested by, or otherwise disclosed in, this combination. Before addressing these claims, a general overview of Durston et al. and amended claim 14 is provided.

In general, claim 14 relates to a network advisory system for providing advisory information to a field service person while in transit between a first destination facility and a second destination facility. The network advisory system includes a novel combination of an advisory module and a data collector. The data collector is the component of the network advisory system that collects data that is to be manipulated into advisory information. The advisory module is the component that manipulates this collected data into advisory information. This manipulation is accomplished based on an analysis of the collected data to an advisory rule matching the data type of the collected information. The advisory module also presents the advisory information to the field service provider while in transit between the first destination facility and the second destination facility.

Durston et al. is directed to a telephone apparatus for use by field service technicians in receiving task assignments over conventional telephone lines. The telephone apparatus includes a data communications modem for receiving data from a host dispatch processor over the telephone network. The host dispatch processor is located at a central office. The telephone apparatus also includes a memory unit for storing data received from the host dispatch processor.

Claim 14 specifically recites the advisory module as being a component of the network advisory system that *generates advisory information relating the collected data to an advisory rule*. The advisory module is specifically recited in claim 14 to be a separate component of the network advisory system respective to the data collector, and indeed, is the component that generates the advisory information. According to the claim, the data collector merely collects data. As such, the advisory module is equivalent to the advisory module of claim 27 and the server computer of claims 1 and 43. Furthermore, the advisory rule against which the collected data is analyzed is recited in claim 14 as *corresponding to a data type of the collected data*. Thus, claim 14 recites advisory information that is generated in the same specific manner as recited in claims 1 and 43. For at least the reasons stated above with respect to claims 1, 27 and 43, claim 14 is believed to recite multiple limitations neither taught nor suggested by Wakefield, II.

Durston et al. does not teach, or even suggest the analysis of data against advisory rules to render advisory information related to the data. Because Durston et al. does not teach these limitations of claim 14 that are deficient in Wakefield, II, the combination of Wakefield, II and Durston et al., improper as it may be, still does not disclose each and every limitation recited in

amended claim 14. Even further, although Durston et al. briefly notes in Col. 3, lines 38-45 that "job assignment information" is stored in an "information source," Durston et al. is completely silent as to the origin or relation of this information. That is, Durston et al. does not teach "collected data," and further, does not teach that this collected data is "related to a destination facility," as required by claim 14. For at least these reasons, Claim 14 is believed patentable over Durston et al. and Wakefield, II, alone or in combination with the other, even if a prima facie case of obviousness had been established by the Examiner's rejection in the Office Action.

Claims 15-26 depend from claim 14 and hence recite an invention that incorporates the same limitations of amended claim 14. For at least the reasons that claim 14, as amended, is believed allowable over the combination of Wakefield, II and Durston et al., claims 15-26 should also be allowed.

With further respect to claim 23, the presentation of advisory information to the field service person is administered on a wireless network device. Such an implementation is neither taught nor suggested by Durston et al. Although Durston et al. teaches the communication of data from the host dispatch processor to the telephone apparatus during periods of time while the field service technicians is off duty, these "off-duty" communications are only taught as being transmitted *over conventional land-based telephone lines*, and not airwaves. Thus, the telephone apparatus, and for practical purposes, the field technician, may only receive data from the host dispatch processor while *stationary*, and interfaced to a conventional telephone outlet. Indeed, Durston et al. does not teach, or suggest in any manner, that these communications could be transmitted to a field service technician while the technician is mobile, such as when the technician is driving in a service vehicle. For that matter, Durston et al. actually teaches away from a "mobile" implementation of communications between the host dispatch processor and the telephone apparatus by only describing a conventional telephone circuit interface and not a wireless interface. For at least these additional reasons, claim 23, and the claims that depend from claim 23, i.e., claims 24 and 25, are believed to be further allowable over the combination of Wakefield, II and Durston et al.

CONCLUSION


This Amendment is believed to be responsive to all points raised in the Office Action mailed March 10, 2003. Still, the Office Action may contain other arguments that are not directly addressed by this Amendment due to the fact that they are rendered moot in light of the preceding arguments in favor of patentability. Hence, failure of this Amendment to directly address an argument raised in the Office Action should not be taken as an indication that the Applicants believe the argument to have merit. Furthermore, the claims of the present application may include other elements, not discussed in this Amendment, that are not shown, taught, or otherwise suggested by the art of record. Accordingly, the preceding arguments in favor of patentability are advanced without prejudice to other bases of patentability.

Claims 1-55 are pending in the application and are believed to clearly be allowable over the art of record. Accordingly, prompt allowance and passage of the application to issue are earnestly solicited. Should the Examiner have any remaining questions or concerns, he/she is encouraged to contact the undersigned attorney by telephone to expeditiously resolve such concerns. Other than the above-noted extension of time fee, no other fees are believed due with this Amendment. However, if this is not the case, please charge any additional fee to Deposit Account No. 13-2725. Additionally, please credit any overpayment to Deposit Account No. 13-2725.

Respectfully submitted,

Dated: June 30, 2003





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